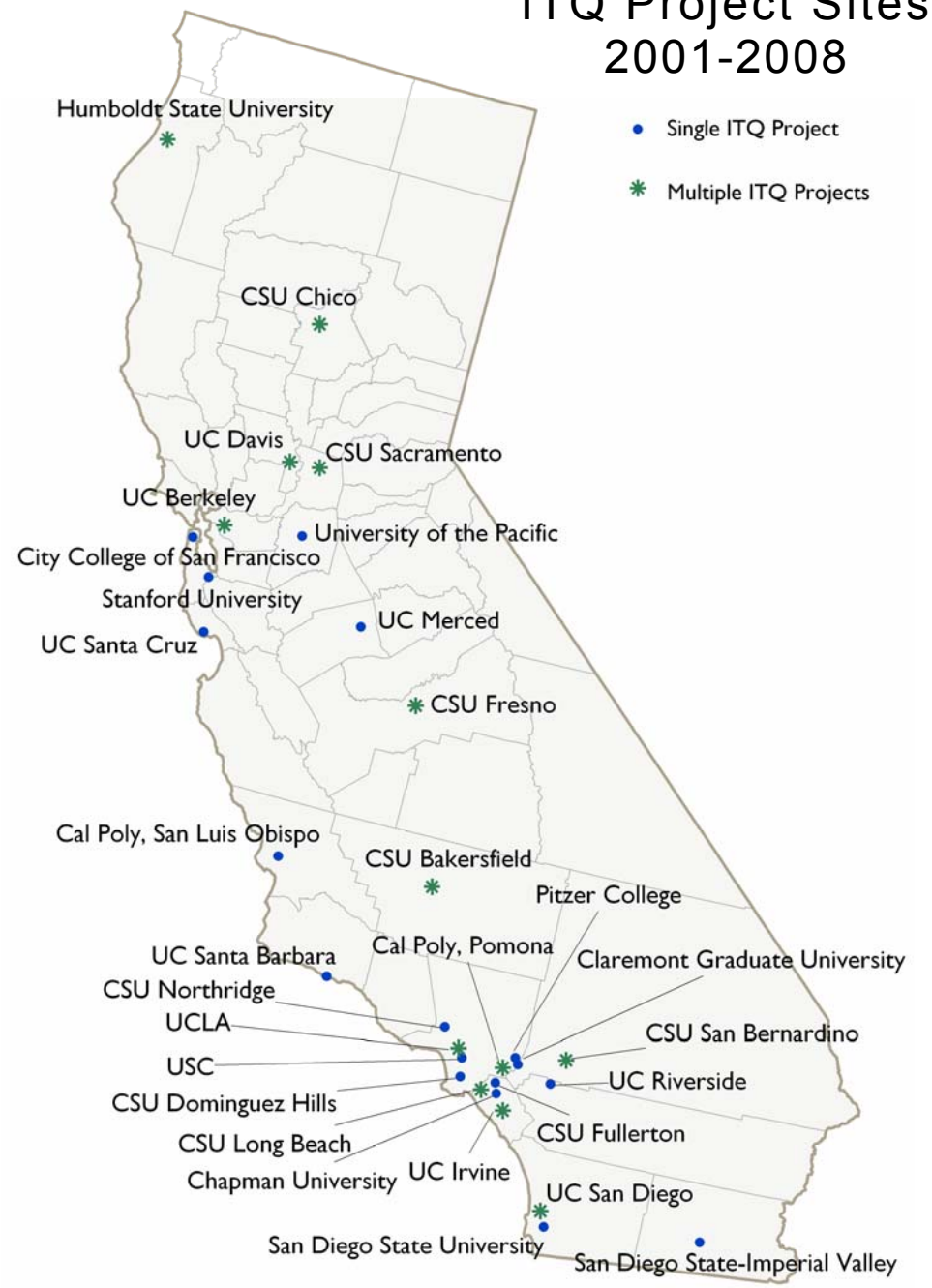
ITQ Project Sites 2001-2008



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Developing Teacher Professionals

California's Improving Teacher Quality State Grant Program 2001-2008

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

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The Improving Teacher Quality Program

The No Child Left Behind Act of 2001 (NCLB) is intended to create dramatic changes in the nation's system of K-12 education: standards for highly qualified teachers, annual assessments of student achievement, substantial consequences for schools that fail to meet improvement goals, and additional federal resources to accomplish those objectives. In contrast to these potentially revolutionary effects, changes in Title II-A of the Act—the part dealing with teacher professional development—are more subtle. Building on the success of fifteen years of the Eisenhower State Grant Program, NCLB left the program largely intact making just one potentially far-ranging change: all proposals and projects must be evidence-based.

California has led the way in implementing this new requirement. Each of the five RFPs issued by the California Postsecondary Education Commission under the ITQ program have required projects to draw from, and be based upon, scientifically based research. Each must include an evaluation research and dissemination plan for adding to the existing research base. Today, the Commission funds more than 40 projects engaged in high quality professional development with an integrated research component—a "project-within-a-project" seeking to determine if and how that professional development leads to increases in student achievement.

Since 2001, the Commission's Improving Teacher Quality Program has:

- Made 45 awards (and 20 sub-awards) to partnerships composed of institutions of higher education and high-need schools and districts;
- Supported professional development for 10,735 teachers;
- Through these teachers, had an impact on the education of almost 602,000 students;
- Awarded more than $44 million in federal grants in support of these teachers and students.

Research & Dissemination

Even though the Improving Teacher Quality Program has served almost 11,000 teachers in its first eight years, the Commission recognizes that it has reached scarcely four percent of California's teachers. As with the Eisenhower Program that preceded it, ITQ's full value is measured in more than the teachers it directly supports. Its value is also measured in the knowledge it produces about effective professional development. For Eisenhower, this meant curriculum (e.g., IMP and CMP mathematics that began with CPEC awards), informal education (e.g., Math, Science, & Beyond and the Mathematics Festival Program supported by CMC), and improvements in models of teacher development (e.g., CSU Fresno's pioneering work to infuse the liberal arts major with more science and math content, now a model at many CSU campuses). ITQ seeks to continue this legacy, and add one more important source of knowledge about professional development—the results of each project's scientifically based research project.

Even though many of these projects are not yet complete, they have already disseminated important information to the field. A partial listing includes:

- *Examining Educational Experiments: A Field Guide for Conducting Scientifically Based Research*, available at http://www.cpec.ca.gov/FederalPrograms/TeacherQuality.asp;
- "Taking a Reading/Writing Intervention for Secondary English Language Learners on the Road: Lessons Learned from the Pathway Project", Booth and Land, *Research in the Teaching of English*, vol. 42, no. 3, February 2008;
- Liane Brouillette, Kim Burge, William Fitzgerald, and Pamela Walker (2008) "Teaching Writing through the Arts in Urban Secondary Schools: A Case Study", Journal for Learning through the Arts: A Research Journal on Arts Integration in Schools and Communities: Vol. 4: No. 1, Article 8. http://repositories.cdlib.org/clta/lta/vol4/iss1/art8;
- Numerous presentations at venues ranging from the American Educational Research Association to National Council of Teachers of Mathematics, to smaller national and regional organizations;
- ITQ research as the basis for doctoral dissertations (e.g., H. Martin, *Elementary School Teachers' Mathematics Instructional Decision Making in the Context of District Mandates on Instruction*, UC Davis).

The Early Elementary Education Initiative

The 2007 publication of California's *Preschool Learning Foundations* presented CPEC with a unique opportunity to link teachers of early elementary students (grades K-2) with preschool teachers so that curriculum and pedagogy might form a continuous educational pathway for their students. The resulting K-2 Initiative had two major goals: to enhance the professional development of California's K-2 teachers by building their subject matter and pedagogical content mastery, and to build on research showing that effective teaching in the early grades helps to close the achievement gap.

The eight awards focus mainly on mathematics and science, a commonality that helps the Commission realize a major goal of targeting its initiatives—creating a synergistic community of interest. Such communities have already paid dividends in both the professional development (e.g., sharing strategies for introducing specific subject matter content to K-2 teachers) and the research studies (e.g., sharing instrumentation in areas where standardized tests are inadequate or unavailable). During their first year of operation, these grants provided 360 teachers with 25,000 hours of professional development.

Although these project's research components are still in the early stages, the educational "marketplace" has already signaled some winners. For instance, the K-2 Teaching Learning Collaborative, a joint project between CSU Long Beach and the Montebello and Garvey school districts, was planned and funded for 42 teachers. However, the districts were so impressed by the early work that they provided funding to nearly double the number of teachers. In fact, half of all the projects enrolled more teachers in their first year than planned for, demonstrating that K-2 teachers are eager for quality professional development that meets their needs.

The recently-awarded 2008 initiative builds on the primary grade focus by funding six projects aimed at reducing the achievement gap in whole elementary schools. The projects serve all teachers in the identified schools and require the development of teacher leaders to support various year-round strategies intended to create systemic change.

Targeted Initiatives

The passage of NCLB encouraged the Commission to review the process it had used in the previous Eisenhower competitive grants program. Typically, those competitions had been "open"—accepting proposals for any, and all, educational opportunities and innovations. For the ITQ program, the Commission made the change to targeted competitions—a Request for Proposals (RFP) focused on a specific educational need. The Commission believes that such targeting offers three important advantages: (1) the vetting process compares "likes with likes" yielding a cleaner, fairer review process more likely to select the best proposals; (2) substantial resources are targeted at a specific need, increasing the chances that a real difference will be made; and (3) all the grantees work on the same problem, fostering formation of a synergistic community of interest.

The first ITQ RFP in 2003 contained three targeted initiatives: secondary school content, technology, and pipeline to professional certification in mathematics and science. The pipeline initiative received the greatest number of proposals and, ultimately, five awards. This initiative was designed to help meet NCLB's condition that all teachers be highly qualified and the state's requirement for a rigorous two-year induction program for new teachers. The initiative sought projects that "connect undergraduate preparation, preliminary certification, and induction with the purpose of professional certification in mathematics or science."

In their final year of funding, these projects served 810 teachers, 854 pre-service teachers, and 8,262 student participants. But their success cannot be captured through a few quantitative measures: their success is embodied in the Future Teachers of America and MESA programs that were started, the opportunities for high school and community college students to partner with classroom teachers, the chance for university faculty to share their expertise with K-14 colleagues, and the close articulation that developed between four-year universities and community colleges, where more than half of California's classroom teachers begin their higher education.

Academic Literacy in Secondary Education

The Academic Literacy Initiative (2005) was based on a series of national research studies that demonstrated two important truths: first, when teachers address underlying academic language issues in the classroom, content learning increases; second, time spent in content classrooms on academic literacy skills improves student's overall language skills. The specific requirements of the Initiative were derived from the California Intersegmental Committee of Academic Senates' (ICAS) 2002 report, *Academic Literacy: A Statement of Competencies*: "In order to be prepared for college and university courses, students need greater exposure to instruction and academic literacy than they receive in English classes alone. This need calls for greater coordination of literacy education among subject matter areas within high schools."

Eight awards were made spanning most disciplinary boundaries: one project linked literacy with the arts; a second focused on literacy and science; a third worked with teachers of both history and science studying their forms of evidence and argumentation; and several used English department resources to work with large populations of English Language Learners across the disciplines. During three years of program implementation, these projects provided 800 teachers with more than 13,000 hours of quality professional development.

Although these project's scientifically based research studies are not yet complete, preliminary results are promising. The Accelerating Academic Literacy Project, a collaboration between the UCI writing project and the Lynwood and Paramount Unified School Districts, has already published a paper on Research in the Teaching of English. Project CALLI (Content Academic Language and Literacy Instruction), a collaboration between CSU Bakersfield and Delano Joint Union High School District, was invited to present preliminary results at a conference and also has a contract to publish a book about the project. Several projects have developed original instruments and research techniques for assessing student change. All of these projects will present their final research results in September 2009.

The Retention Initiative

Many national and state reports (National Academies of Science, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, California Commission on Teacher Credentialing (CCTC)) cite a dangerous fact: neither the state nor the nation have enough qualified mathematics and science teachers. In fact, a report from the California Commission on Teacher Credentialing shows that California's demand for qualified science technology engineering and math (STEM) teachers exceeds the supply by many thousands of teachers each year. One solution—California's Science-Mathematics Initiative—commits the University of California and California State University to train 1,500 new STEM teachers annually. The ITQ Science and Mathematics Teacher Retention Initiative (2006) sought to increase STEM teacher numbers by employing a complementary strategy; using quality professional development programs to reduce teacher attrition.

In order to maximize the number of teachers included in the initiative, the Commission used a master grantee strategy, making awards to both the California Mathematics (CMP) and Science (CSP) Projects. Each master grantee then held internal competitions to provide ten site awards each around the state. This funding strategy allows the retention initiative to reach over 600 teachers, delivering more than 66,000 hours of professional development annually.

Most of the CMP sites focus on new teachers, and provide content-based professional development that includes summer academy models, university course work, test preparation, and/or summer institutes with year round follow-ups. All of the CSP sites employ a community of practice approach tailored to fit local needs. For example, the San Diego site's community includes all the science teachers in a large urban high school. Humboldt's community includes 38 teachers from 16 mostly rural districts. Other sites have different models of learning communities. These projects are only half way through their five-year funding period, but preliminary research suggests that they do help to keep qualified teachers in mathematics and science classrooms.